

### **REMARKS**

Claims 1-26 are currently pending in the subject application and are presently under consideration. Claims 1-22 and 26 have been amended and claim 27 has been newly added as shown on pp. 3-7 of the Reply. Further, claims 24 and 25 have been cancelled. In addition, the specification has been amended as indicated on page 2. Applicants' represents thanks Examiner Lee for the courtesies extended during the telephonic interview conducted on February 12, 2008. Per discussion with the Examiner during the aforementioned interview, the current amendments should overcome the current rejections and further prosecution. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claims 1-20 and 24 Under 35 U.S.C. §101**

Claims 1-20 and 24 stands rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. More specifically, the Examiner asserts that independent claims 1 recites software per se. It is respectfully requested that this rejection be withdrawn for at least the following reasons. Claim 24 has been cancelled. In addition, the subject claims recite statutory subject matter as they produce a useful, concrete and tangible result such to be classified as patentable subject matter according to 35 U.S.C. §101.

Because the claimed process applies the Boolean principle [abstract idea] ***to produce a useful, concrete, tangible result*** ... on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed. Cir. 1999) (Emphasis added); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability requires an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been ***reduced to some practical application rendering it "useful."*** *AT&T* at 1357 citing *In re Alappat*, 33 F.3d 1526, 31 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (emphasis added).

The claimed subject matter relates to an attributed debugging system that enables a developer to associate a specific view of an object for examining in a debugger. The specific

view includes only object information necessary for the developer to debug the object. In particular, independent claim 1 recites *a computer-implemented attributed debugging system comprising a debugger that facilitates debugging of a computer software application, an expression evaluator associated with the debugger that determines details of an object of the computer software application that is a subject of the debugger, the expressions evaluator determines details of the object based upon a display proxy associated with the object, the display proxy provides relevant features of the object and conceals implementation specifics of the object and a variable display component that presents the determined details of the object to a developer.* The result of examining an object based upon a display proxy is both concrete and tangible because a developer can perceive relevant features of the object without being subjected to a complex display including implementation specifics. Furthermore, the functionality of customizing how an object is examined mitigates debugging effort and costs by enabling the developer to efficiently discern properties of an examined object that are necessary for debugging. Thus, the claimed subject matter is useful. Therefore, since the claims recited produce a useful, concrete and tangible result, they encompass statutory subject matter in accordance with the controlling case law presented above.

Moreover, as a guideline for showing utility, MPEP §2106 provides “[r]egardless of the form of statement of utility, ***it must enable one ordinarily skilled in the art to understand why the applicant believes the claimed invention is useful.***” The aforementioned utility of mitigating the difficulty in debugging computer applications would be easily be understood by one having ordinary skill in the art and does not need to be recited in the claims for at least this reason. Providing a computer-implemented system to perform such tasks exhibits practical utility and one having ordinary skill – e.g. one who would be responsible for debugging computer applications – would undoubtedly find such practical utility in the claims as recited. In view of at least the foregoing, the subject matter recited in independent claims 1, as well as claims 2-20 which respectively depend therefrom, satisfy the utility guidelines and also produce a useful, concrete, and tangible result that falls within the scope of 35 U.S.C. § 101.

In the subject Office Action, it is asserted that claims 1--20 recite nothing more than a set of software instructions and, further, that software per se is non-statutory. Applicants’ representative respectfully disagrees and contends that claims 1--20, if evaluated as pertaining to

software, are still patentable in light of recent Federal Circuit opinion in *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338 (Fed. Cir. 2005), wherein the court stated:

Title 35, section 101, explains that an invention includes ‘any new and useful process, machine, manufacture or composition of matter.’ Without question, *software code alone* qualifies as an invention eligible for patenting under these categories, at least as processes. (emphasis added) (citations omitted).

This case further emphasizes that any new useful process, machine, *etc.*, is a patentable invention such as the claimed subject matter as shown above. The opinion also affirms that if claims 1-20 are viewed as a computer program, the subject matter as recited undeniably falls within the bounds of this holding. Moreover, the subject claims explicitly recite that the limitations are computer-implemented – thus, providing physical structure.

For at least the foregoing, it is readily apparent that the claimed subject matter is patentable under 35 U.S.C. §101. Accordingly, rejection of claims 1-20 under this section should be withdrawn.

## **II. Rejection of Claims 1-4 and 25 Under Judicially Created Doctrine of Obviousness-Type Double Patenting**

Claims 1-4 and 25 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 21 of copending U.S. Patent Application Serial No. 10/808,905. These rejections should be withdrawn for at least the following reason. In view of the amendments herein, it is submitted that the inventions are patentably distinct. Accordingly, the rejection of claims 1-4 and 25 should be withdrawn and a timely notice of allowance issued.

## **III. Rejection of Claims 1, 2, 4, 6-9, 11, 12, 18-26 Under 35 U.S.C. §102(e)**

Claims 1, 2, 4, 6-9, 11, 12, 18-26 stand rejected under 35 U.S.C. §102(e) as being anticipated by Bates *et al.* (U.S. 6,961,924). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Bates *et al.* does not disclose, teach or suggest each and every limitation recited by the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation* set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ***The identical invention must be shown in as complete detail as is contained in the ... claim.*** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The claimed subject matter relates to an attributed debugging system that enables a developer to associate a specific view of an object for examining in a debugger. The specific view includes only object information necessary for the developer to debug the object. In particular, independent claim 1 recites *a computer-implemented attributed debugging system comprising a debugger that facilitates debugging of a computer software application, an expression evaluator associated with the debugger that determines details of an object of the computer software application that is a subject of the debugger, the expressions evaluator determines details of the object based upon a display proxy associated with the object, the display proxy provides relevant features of the object and conceals implementation specifics of the object and a variable display component that presents the determined details of the object to a developer.* Similarly, independent claims 21 and 26 recite a display proxy that *provides relevant properties regarding a state of the object and conceals properties related to implementation of the object.* *Bates et al.* does not disclose, teach or suggest such aspects of the subject claims.

Rather, *Bates et al.* relates to debugging software code wherein the debugger includes additional descriptive material associated with variables beyond the values stored by the variables. In one embodiment, comments associated with a variable are displayed in a debugger in connection with the variable. The comments can be external (e.g., stored in a database) or internal (e.g., comments within source code). (*See* col. 3, ll. 39-51). In addition, information can be provided that describes the use of a variable. For example, attributes can be associated with variables that indicate the variable is a global, static, an index value, a parameter, a return value or a call value. (*See* col. 3, ln. 64 – col. 4, ln. 4). During the debugging process, the debugger checks to see if any attributes are associated with a variable and displays the attribute accordingly. (*See* col. 11, ll. 32-50). Thus, *Bates et al.* relates to providing information, such as

comments or use information, in addition to the value of variables.

In the claimed subject matter, a display proxy is employed to generate debug information related to an object (*e.g.* a class variable or the like). The display proxy is examined by the debugger in place of the object. As recited in the subject claims, a display proxy provides relevant features of an object while concealing implementation specifics. For example, consider a HashTable object wherein keys are utilized in connection with values to store values in the HashTable. While debugging, a developer may only be interested in the keys and associated values of the HashTable. A debugger examining the actual object will reveal details that include complex variables specifying how the HashTable implements its functionality. A display proxy, however, will reveal the keys and values in a meaningful manner when examined in place of the object and conceal the complex variables relating to implementation. Bates *et al.* discloses examining variables themselves and not a proxy that only provides relevant features and not implementation specifics. For example, Fig. 7 of Bates *et al.* shows a variable “name” that includes both a value of a pointer as well as the value of the field pointed thereto. Thus, Bates *et al.* reveals the entirety of a variable. Further, Bates *et al.* is silent regarding examining a proxy to obtain variable value information.

In view of at least the foregoing, it is readily apparent that Bates *et al.* fails to disclose, teach or suggest all aspects of the claimed invention. Accordingly, it is respectfully requested that this rejection of independent claims 1, 21, and 26 (and the claims that depend therefrom) should be withdrawn.

#### **IV. Rejection of Claim 5 Under 35 U.S.C. §103(a)**

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bates *et al.* in view of Chan *et al.* (U.S. 6,948,008). It is respectfully requested that this rejection be withdrawn for at least the following reason. Claim 5 depends from independent claim 1 and Chan *et al.* does not rectify the deficiencies presented by Bates *et al.* with respect to independent claim 1, as discussed above. Accordingly, withdrawal of this rejection is respectfully requested.

#### **V. Rejection of Claim 10 Under 35 U.S.C. §103(a)**

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bates *et al.* in view of Chan *et al.* and in further view of Bates *et al.* (U.S. 7,251,808). Withdrawal of this

rejection is requested for at least the following reasons. The cited references do not teach or suggest each and every limitation of the subject claims. Claim 10 depends from independent claim 1 and Chan *et al.* and Bates '808, either alone or in combination, fails to cure the aforementioned deficiencies of Bates '924. Accordingly, applicant's representative respectfully requests that this rejection be withdrawn.

**VI. Rejection of Claims 3 and 13-17 Under 35 U.S.C. §103(a)**

Claims 3 and 13-17 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bates *et al.* in view of Dandoy (U.S. Publication No. 2004/0230954). It is respectfully requested that this rejection be withdrawn for at least the following reason. Claims 3 and 13-17 depend from independent claim 1 and Dandoy does not rectify the deficiencies presented by Bates *et al.* with respect to independent claim 1, as discussed above. Accordingly, withdrawal of this rejection is respectfully requested.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP579US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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